







Agency for Innovation, Business Financing and Internationalisation of Castilla y León Regional Ministry of Economy and Finance

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Land:

• 95,000 km²: third-largest in Europe; larger than 16 MS.

Local administration:

- 9 provinces
- 2249 municipalities.

Population:

- 2.5 million inhabitants
- 27 inh/km² -Spain: 89.3 inh/km²

• GDP per capita:

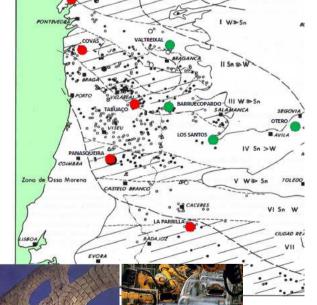
2014: 23,500 €

95% ESP; 86% UE

2007: 22.700 €

96.6% ESP; 101.4% UE











- Mining in Castilla y León started during the Roman Empire. In that time was created the "Silver Way" (Vía de la Plata), a communication way between the north and the south of Spain which crosses the region as a spine, mainly developed to transport silver, gold and other minerals.
- In the early years of the 20th Century mining was one of the most important factors which sparked the economic development of the Region. Production of Iron, Tin, Uranium, Tungsten or Natural Ornamental Stone where some of the most important productions.
- The production of these minerals declined notably from the 1970s, being the Coal mining the most important extraction, mainly to cover the necessities of Regional thermoelectric plants.







Mining Possibilities in the Region

- The lack of some raw materials, the substitution alternatives and the new SUSTAINABLE extraction and process mining technologies are launching a new mining era in our region.
- The new minerals processing capabilities are opening some closed mines in the 1970s and new studies are becoming.
- The new raw materials research methodology (extraction, processing,...) and the new market situation, increases substantially the mining potential in the region.
- The example of the TUNGSTEN: Castilla y León has 30% of the European stockpiles (60% of the Spanish ones). Most of the tungsten exploitations were made during the first half of the 20th Century in a traditional way.







Participation of Castilla y León, companies/stakeholders, in the Raw Materials EIP Commitments and EU Projects

Participation in the 1st and 2nd call for commitments EIP:

- 1. INCOMES: Magnesium / Magnesite
- 2. PPS: Legislation
- 3. Stand4Mines: Sustainability in the mining activity
- 4. PolymetOre: Low grade ores
- 5. SUMAN 2000: Non-energy mineral extraction Red Natura
- 6. Taurus: Thermodynamic assessment
- 7.C&D-WRAM: CDR
- 8. CARBOCYCLE: Recycling Process for CFRP (Carbon Fibres Reinforced Plastic)
- 9. **RESET**: Raw elements substitution in electronic and optoelectronic technologies
- 10. **SUBST-EXTREME**: Sustainable substitution in extreme conditions
- 11. **METGROW**: Metal recovery from low grade ores & wastes
- 12. BioAlMinore: Bio-mining and bio-mineralization techniques
- 13. EHI: Creation of a European Hydrometallurgical Institute
- 14. InTrain4RM: International Training Center For Raw Materials
- 15. NATUREUROSTONES: European database on natural stones
- 16. RAW-NANOVALUE: CRM. Nanotechnology as a vehicle for substitution
- 17. CYCLEFIBER: ReCycle of Fiber-based Materials → 3D Manufacturing
- 18. MIREU: EU network of mining and metallurgy regions

Some EU projects in raw materials sector with participation of CyL stakeholders:









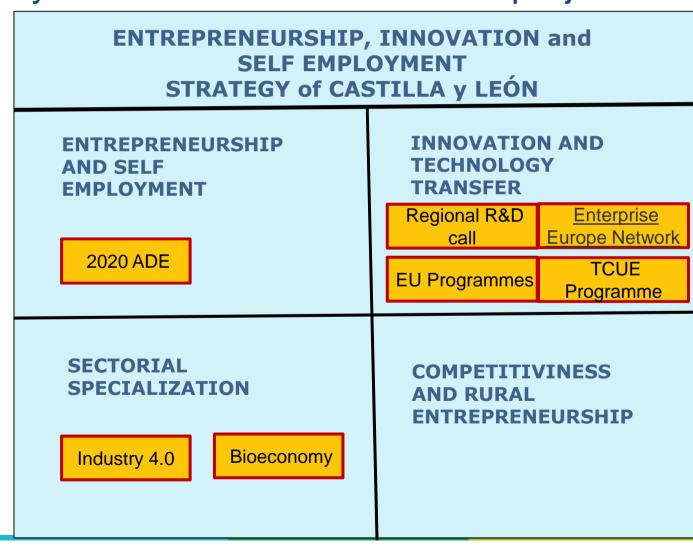






What will be your main contribution in the project?

Entrepreneurship Self Employment Castilla y León" "Strategy for Innovation and











- SMEs are the key economic players in our regions.
- Not single companies, but the whole value chain, even large ones with traction capacity
- Three strategic axes:
 - **1. Awareness:** opportunities from Industry 4.0 and added value from cross-border cooperation.
 - 2. Platforms: creation of DIHs, digital ecosystems based on Open Source Platforms, accelerating time-to-market, speed up innovation and minimize risks. SaaS facilitates SMEs' access to innovative digital services without having to invest on expensive infrastructures or licenses.
 - **3. Projects:** promoting tools and approaches that can be effectively integrated within the SME production through innovation projects.
- Reinforce interregional cooperation, surveying both the demand and supply side and providing demonstrational and development services in order to accelerate and catalyze the process of matchmaking within the European Value Chain.











Regional Stakeholders

DIRECCIÓN GENERAL DE ENERGÍA Y MINAS Ricardo González General Director for Energy and Mining

COMISIONADO PARA LA CIENCIA Y LA TECNOLOGÍA Gregorio Muñoz Deputy Commissioner for Science and Technology.

SIEMCALSA Ramón Cabrera Industrial Minerals Responsible

Other Regional stakeholders will be involved in REMIX: University, Technology transfer, science & technology, companies, cluster,...



Enterprise Europe Network

Connecting your Company in Europe

>600 nodes

60 countries

International scope

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What do you want to achieve by participating in REMIX?



Agencia de Innovación, Financiación

e Internacionalización Empresarial



How to influence Policy Instrument

The 2014- 2020 ERDF Operational Programme of Castilla y León (OP):

TO 1: Fostering of R&D and Innovation

OE.1.1.2. Strengthening R&D and innovation institutions and creation, consolidation and improvement of the technology and scientist infrastructures.

OE.1.2.1. Impulse and promotion of R & Innovation activities by enterprises and support the creation and consolidation of innovative enterprises.

- ▶ Mining companies and their value chains are traditional industries in our region. Capacity building in the mining sector can be developed from the adaptation / integration of R&D&i capabilities, environment protection policies, natural resources efficiency, awareness and promotion.
- There is margin of improvement in the regional mining sector around integration of concepts like best practices in environmental protection, state of the art, environmental and social impact assessment, environmental remediation and protection, mining with no surface footprint, innovations in minerals processing and how best to integrate renewable energy sources into mining. This can boost the sector in order to become sustainable again from an economic, environmental and social point of view and to be competitiveness in the global market.
- ► The knowledge sharing with other regions will be important in the generation of synergies and will open capabilities for defining a sustainable action plan for improving the sectoral approach.
- ► A <u>multidisciplinary regional collaboration</u> is well defined and influenced during the project.





Thank you!

Questions welcome





